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MYCOLOGIA

VOL. XI NOVEMBER, 1919 No. 6

ILLUSTRATIONS OF FUNGI—XXXI

WILLIAM A. MURRILL

The three species of gill-fungi shown on the accompanying plate are all edible and conspicuous by reason of their size or brilliant coloring. It is unfortunate that more space is not available for their adequate representation.

Cortinarius alboviolaceus (Pers.) Fries

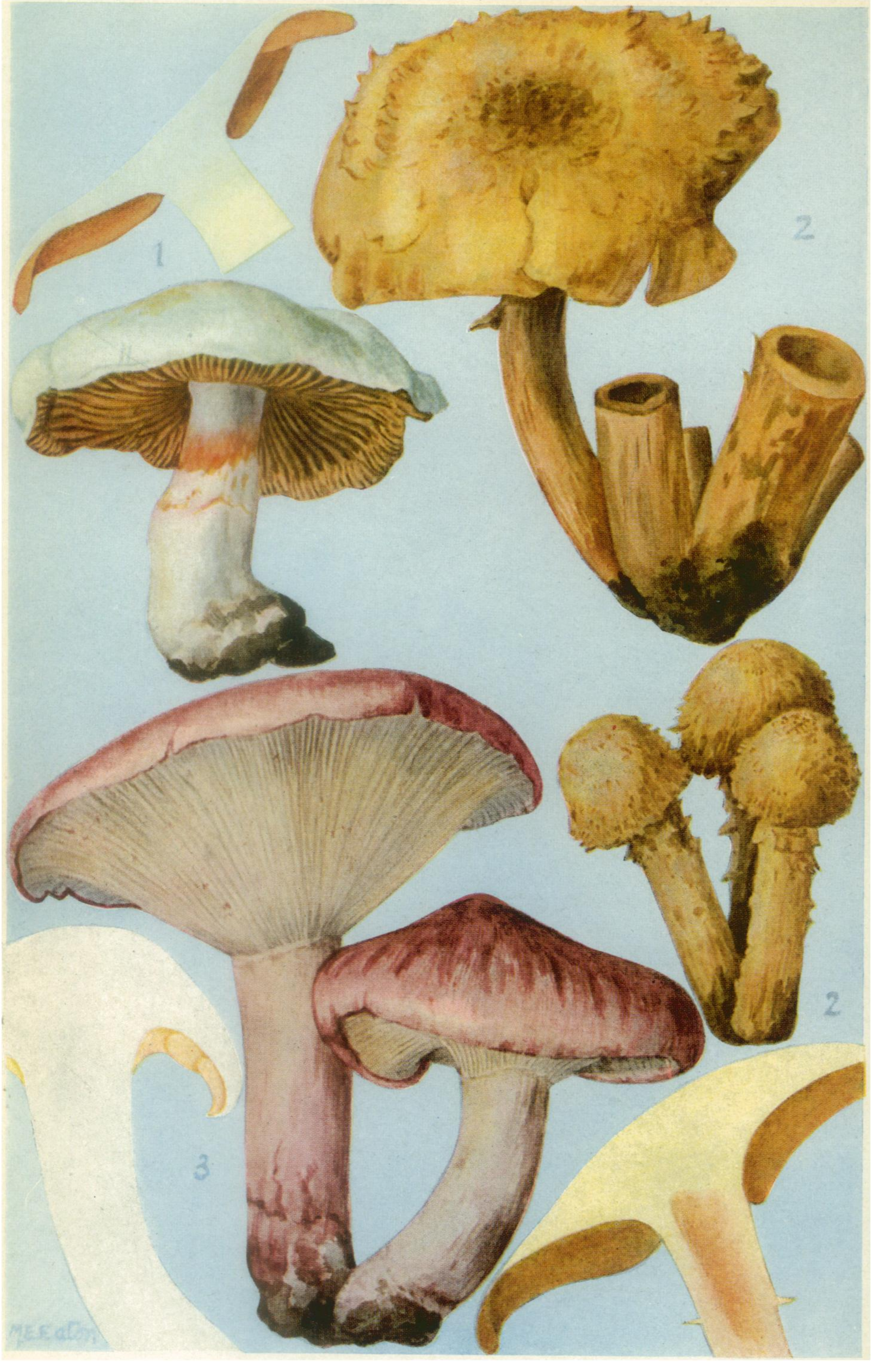
PALE-VIOLET CORTINARIUS

Plate 13. Figure 1. × 1

Pileus fleshy, bell-shaped to convex with a broad umbo, gregarious, 3–6 cm. broad; surface smooth, dry, shining, appressed-silky, pale-violaceous to caesious-buff, soon becoming silvery-white with a violet tint; margin persistently decurved; context caesious or violet-tinted, of mild flavor; lamellae adnate to emarginate or slightly decurrent, rather broad, crowded, pale-violet to ashy-purplish when young, soon becoming paler and at length cinnamon-brown, eroded-crenulate on the edges; spores ellipsoid, rusty-brown, variable in size, slightly roughened, $6.5–9 \times 4–5 \mu$; stipe tapering upward from a thickened base, spongy-stuffed, 4–8 cm. long, 5–20 mm. thick, violaceous above, usually peronate by the universal veil, which is thin, soft, white, appressed, and silky-interwoven.

This pretty, pale-violet species is common in late summer and autumn among leaves or humus in thick woods throughout most of temperate North America and Europe. It grows gregariously and is abundant enough to use for food. I have often eaten it in

[MYCOLOGIA for September (11: 231–287) was issued October 18, 1919]



ILLUSTRATIONS OF FUNGI

the Adirondacks and elsewhere. Insects are very fond of it. When dried, specimens become so much paler that they are hardly recognizable.

Pholiota squarrosoides Peck

SHARP-SCALE PHOLIOTA

Plate 13. Figure 2. × 1

Pileus fleshy, firm, subglobose when young, at length convex, usually densely cespitose, 3–10 cm. broad; surface whitish, viscid when moist, adorned with erect, pointed, terete, tawny scales more abundant on the disk; context white, rather thick, edible; lamellae adnate or arcuate, often sinuate with age, rather narrow, crowded, whitish, becoming brownish-ferruginous; spores short-ellipsoid to ovoid, smooth, rusty-brown, $5–5.5 \times 2.5–3.5\,\mu$; cystidia scattered, about $30\,\mu$ long, obtuse at the apex; stipe equal, solid or stuffed, smooth and white above, rough below with numerous recurved, tawny scales; annulus floccose, lacerate.

This species was carefully studied by Dr. Peck in the Adirondacks, where he found it growing in clusters on dead logs and stumps of the sugar maple, and more rarely on beech and a few other deciduous trees. According to him, the flesh is firm and of excellent flavor. Prof. Hard found it in Ohio late in the fall, reporting it as especially frequenting hollow stumps and logs of the sugar maple. Dr. Kauffman reports it as frequent in certain parts of Michigan, occurring in very dense clusters on living trunks of maple, birch, and beech, as well as on dead logs and stumps of various deciduous trees.

According to Dr. Peck, it may be distinguished from the European species, *Pholiota squarrosa* Müll., by its "viscid pileus, its compact, erect, pointed scales, its sinuate lamellae and its brownish ferruginous spores." He reports *P. squarrosa* as not very common, occurring in dense tufts on dead wood in August and September.

According to Dr. Kauffman, *Pholiota squarrosa* differs from *P. squarrosoides* in the "color of the young gills, the disagreeable odor, the yellow flesh, the crocus-yellow or tawny color, and the larger, smoother spores."

I have a young specimen from Redding, Connecticut, collected by Earle, who described it as "white with brown scales." This matches Peck's specimens of *P. squarrosoides* at Albany exactly. I also have larger specimens, which I collected in 1912 on a sugar maple log on the grounds of the Lake Placid Club. These resemble typical *P. squarrosoides* in appearance and grew on its usual host, but they had the strong, unpleasant odor of the European *P. squarrosa,* which can never be forgotten when once experienced.

I went out on a short collecting trip to the south of Upsala, Sweden, on the afternoon of October 12, 1910, and found a large cluster of *P. squarrosa* in the hollow trunk of a partly dead *Salix alba.* The caps were large and covered with large, erect scales, and the stems were very long. It agreed perfectly with specimens in the Fries Herbarium and also with specimens from Bresadola. I took the plants to my room at the hotel and placed them about the porcelain stove to dry while I slept; for the weather was cold and snowy and the stove contained a little fire. I lay down and tried to sleep, but all night long there was that strong, disagreeable odor in my nostrils, unlike anything I had ever smelt before. I can remember it yet; and I have had no difficulty in recalling it when I collected specimens with the same odor since.

On September 23, 1912, I was out collecting with Mr. Field at Stockbridge, Massachusetts, when I found by the roadside at the base of an apple-tree a large, dense cluster of mushrooms, which I called *P. squarrosa* at the time because they had the same strong odor experienced in Sweden. The taste was watery and not particularly unpleasant. I brought the cluster home and Miss Eaton made from it the drawing shown on the accompanying plate.

Melanoleuca Russula (Scop.) Murrill

Tricholoma Russula Gill.

REDDISH MELANOLEUCA

Plate 13. Figure 3. × 1

Pileus fleshy, convex, becoming plane or centrally depressed, obtuse, solitary or subcespitose, 7.5–12.5 cm. broad; surface viscid when moist, smooth or dotted with granular squamules on the disk, pale-pink or rose-red suffused at times with yellowish stains or purplish streaks; margin usually paler, involute and minutely downy in the young plant; context white, sometimes tinged with red, the taste mild; lamellae subdistant, rounded behind or subdecurrent, white or yellow, often becoming red-spotted with age; spores ellipsoid, 6–7.5 × 4 μ; stipe solid, firm, dry, white, often reddish below, squamulose at the apex, 3–7 cm. long, 1.5–2.5 cm. thick.

This species was figured in *Mycologia* for September, 1915, the form there represented having a pale-pink surface with yellowish stains, and white gills. The form here shown is much redder and the gills are yellowish. The plant is frequent, either growing singly or in clusters, under oaks or in mixed woods in the northeastern United States, although not abundant enough to consider for table use. Dr. Peck agrees with McIlvaine that it is delicious; and it certainly has that appearance. The name refers to its resemblance to *Russula,* but the context is firm and not vesiculose, while the spores are very distinct. Mrs. Delafield found the deep-red form at Buck Hill Falls, Pennsylvania, in August of this year and sent in a specimen of it to the Garden herbarium.

NEW YORK BOTANICAL GARDEN.